Attorney's Docket No. 042390P10254

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

JUL 1 5 2007

Valery M. Dubin, et al.

Serial No. 09/753,256

Filed: December 28, 2000

Interconnect Structures and a Method of For:

Electroless Introduction of Interconnect

Structures

Examiner: Thai, Luan C.

Art Unit 2827

RESPONSE TO OFFICE ACTION

Box Amendments - No Fee **Assistant Commissioner for Patents** Washington, D.C.

Dear Sir:

In response to the Office Action mailed April 24, 2002, Applicants respectfully request entry of the following amendments. LECHROLOSA CENTER \$800

IN THE CLAIMS

Please capcel claims 2 and 3.

Please amend the following claims:

(Amended) A method comprising:

forming a portion of an interconnect structure in an opening through a dielectric over a

contact point; and

forming a conductive shunt structure adjacent the portion of the interconnect structure through a chemically-induced oxidation-reduction reaction comprising introducing a shunt material precursor in the presence of an alkaline metal-free reducing agent.

B2

(Amended) The method of claim 1, wherein forming the shunt structure comprises introducing the shunt material precursor in the presence of a non-metallic chelating agent.

(Amended) The method of claim 1, further comprising:





2813

JUL 1 5 2002.

PTC/SB/21 (08-00)
Approved for use through 10/31/20/2. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
or the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

| S S S S S S S S S S S S S S S S S S S | | | · · · · · · · · · · · · · · · · · · · | | | | | |
|---|--|------------------------------|---|---|--|--|--|--|
| TRADE TO A NISMITTAL FORM | | | Application No. | 09/753,256 | | | | |
| TRANSMITTAL FORM (to be used for all correspondence after initial filing) | | | Filing Date | December 28, 2000 | | | | |
| | | | First Named Inventor | Valery M. Dubin | | | | |
| | | | Group Art Unit | 2813 | | | | |
| | | | Examiner Name | Nguyen, Tuan H. | | | | |
| Total Number of | Pages in This Submissi | on 12 | Attorney Docket Number | 42390P10254 | | | | |
| ENCLOSURES (check all that apply) | | | | | | | | |
| Fee Transmittal | Form | Assignmen (for an App | t Papers lication) | After Allowance Communication to Group | | | | |
| Fee Attac | thed | Drawing(s) |) | Appeal Communication to Board of Appeals and Interferences | | | | |
| Amendment / Re | esponse | Licensing-r | elated Papers | Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) | | | | |
| After Fina Affidavits | al /declaration(s) | Petition | | Proprietary Information | | | | |
| Extension of Tim | ne Request | Petition to C Provisional | Convert a Application | Status Letter | | | | |
| Express Abandonment Request | | Power of At Change of | ttorney, Revocation Correspondence Address | Other Enclosure(s) (please identify below): | | | | |
| Information Disclosure Statement | | Terminal D | visclaimer | Return receipt postcard | | | | |
| Certified Copy of Priority Document(s) | | Request for | Refund | 3.1 | | | | |
| Response to Missing Parts/ Incomplete Application | | CD, Numbe | er of CD(s) | Ec | | | | |
| Response to Missing Parts under 37 CFR 1.52 or 1.53 | | Remarks | _ | JUL 13 2002 | | | | |
| | | | | | | | | |
| | SIGNATUR | E OF APPLICA | NT, ATTORNEY, OR AG | SENT 228 | | | | |
| Firm | William Thom | as Babbitt, Re | eg. No. 39,591 | | | | | |
| or Individual name | BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP | | | | | | | |
| Signature Millian Bouthet | | | | | | | | |
| Date 7/8/02 | | | | | | | | |
| | CERTIF | ICATE OF MAIL | ING/TRANSMISSION | | | | | |
| I hereby certify that this postage in an envelope | s correspondence is bei | ng deposited with the | | vice as First Class mail with sufficient 20231 on: | | | | |
| Typed or printed name Nedy Calderon | | | | | | | | |
| Signature Nety Calturn Date 7/8/02 | | | | | | | | |

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.





COPY OF PAPERS ORIGINALLY FILED

PTO/SB/17 (11-01)
Approved for use through 10/31/2002. OMB 0651-0032
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

| PEE TRANSMITTAL | | | Complete if Known | | | | |
|--|-------------|------|----------------------|---------------------------------|--|--|--|
| REMOENTAINS IVII | i i Ai | _ | Application Number | 09/753,256 December 28, 2000 | | | |
| for FY 200 | 2 | | Filing Date | | | | |
| Patent fees are subject to annual re | vision. | | First Named Inventor | Valery M. Dubin | | | |
| Applicant claims small entity status. Se | e 37 CFR 1. | .27. | Examiner Name | Nguyen, Tuan H. | | | |
| | | | Group/Art Unit | 2813 | | | |
| TOTAL AMOUNT OF PAYMENT | (\$) | 0.00 | Attorney Docket No. | 42390P10254 | | | |

| METHOD OF PAYMENT (check one) | | | | FE | E CALCULATION (continued) | |
|--|------------|-------------|---------|------------|---|-------------|
| ☐ Check ☐ Credit card ☐ Money ☐ Other 🔀 None | 3. Al | DDITIO | NAL | FEES | 8 | |
| — Olda | Large | Entity | , Sma | ili Entity | y | |
| Deposit Account | Fee | Fee | Fee | Fee | _ | |
| Deposit Account 02-2666 | Code | (\$) | Code | (\$) | Fee Description | FeePaid |
| Number 02-2000 | 105 | 130 | 205 | 65 25 | Surcharge - late filing fee or oath | |
| Deposit Account District Scholaff Toules & Zafman LLD | 127 | 50 | 227 | 25 | Surcharge - late provisional filing fee or cover sheet. | |
| Account Name Blakely, Sokoloff, Taylor & Zafman LLP | | 130 | 139 | 130 | Non-English specification | |
| The Commissioner is authorized to: (check all that apply) | 147 | 2,520 | 147 | 2,520 | For filing a request for ex parte reexamination | |
| Charge fee(s) indicated below Credit any overpayments | 112 | 920 • | 112 | 920 | Requesting publication of SIR prior to Examiner action | ľ |
| Charge any additional fee(s) required under 37 CFR §§ 1.16, 1.17, 1.18 and 1.20. | 113 | 1,840 * | 113 | 1,840 | * Requesting publication of SIR after Examiner action | |
| Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account | 115 | 110 | 215 | 55 | Extension for reply within first month | |
| FEE CALCULATION | 116 | 400 | 216 | 200 | Extension for reply within second month | |
| 1. BASIC FILING FEE | 117 | 920 | 217 | 460 | Extension for reply within third month | |
| Large Entity Small Entity | 118 | 1,440 | 218 | 720 | Extension for reply within fourth month | |
| Fee Fee Fee Fee Description Fee Part | 128 | 1,960 | 228 | 980 | Extension for reply within fifth month | |
| | 119 | 320 | 219 | 160 | Notice of Appeal | |
| 101 740 201 370 Utility filing fee | 120 | 320 | 220 | 160 | Filing a brief in support of an appeal | |
| 106 330 206 165 Design filing fee | 121 | 280 | 221 | 140 | Request for oral hearing | |
| 108 740 208 370 Reissue filing fee | 138 | 1,510 | 138 | 1,510 | Petition to institute a public use proceeding | |
| 114 160 214 80 Provisional filing fee | 140 | 110 | 240 | 56 | Petition to revive - unavoidable | |
| SUBTOTAL (1) (\$) | 141 | 1,280 | 241 | 640 | Petition to revive - unintentional | |
| SUBTOTAL (1) | | 1,280 | 242 | 640 | Utility issue fee (or reissue) | 70 |
| 2. EXTRA CLAIM FEES Extra Fee from | 143 | 460 | 243 | 230 | Design issue fee | |
| Claims below FeePaid | 144 | 620 | 244 | 310 | Plant issue fee Petitions to the Commissioner | <u> </u> |
| Independent 30 - 32 = 0 X 18.00 \$0.00 | 122 | 130 | 122 | 130 | Petitions to the Commissioner CO | = |
| Carris 3 3 0 X 84.00 = \$0.00 | 123 126 | 50 180 | 123 | 50 180 | Petition to revive - unavoidable Petition to revive - unintentional Utility issue fee (or reissue) Design issue fee Plant issue fee Petitions to the Commissioner Prosessing fee under 37 CFR 1.17(q) Submission of Information Disclosure Stmt | 프 |
| Large Entity 1 Small Entity | 581 | 40 | 581 | 40 | | - |
| Fee Fee Fee Fee Description | | | | | property (times number of properties) | ľ |
| Code (\$) Code (\$) 103 18 203 9 Claims in excess of 20 | 146 | 740 | 246 | 370 | Filing a submission after final rejection (37 CFR § 1.129(a)) | |
| 102 84 202 42 Independent claims in excess of 3 | 149 | 740 | 249 | 370 | For each additional invention to be examined (37 CFR § 1.129(b)) | |
| 104 280 204 140 Multiple Dependent claim, if not paid | 179 | 740 | 279 | 370 | Request for Continued Examination (RCE) | |
| 109 84 209 42 **Reissue independent claims over original patent | 169 | 900 | 169 | 900 | Request for expedited examination | |
| 110 18 210 9 "Reissue claims in excess of 20 and over original patent | | e (specify) | | 333 | of a design application | |
| • | Suite 160 | - (openij) | | | | |
| SUBTOTAL (2) (\$) 0.00 | * Reduced | by Basic F | ing Fee | Paid | SUBTOTAL (3) | |
| or number previously paid, if greater, For Reissues, see below | | | | | | |

| SUBMITTED BY Complete (if applicable) | | | | | | | | |
|---------------------------------------|------------------------|--------------------------------------|--------|-----------|----------------|--|--|--|
| Name (Print/Type) | William Thomas Babbitt | Registration No. (Attorney/Agent) | 39,591 | Telephone | (310) 207-3800 | | | |
| Signature | William Babbild | | | Date | 7/8/02 | | | |

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2039.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.